

MOISTURE SENSITIVITY

National

February 4 - 6, 2003 Seminar

Road Map for the Future & Discussion



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Road Map

- **Introduction**
- **Objective and goals**
- **Organization of seminar**
- **Findings of breakout sessions**
- **Identify and prioritize needs**
- **Timeline**
- **Recommendations**





Road Map

■ Introduction

- Point out the problem(s)- major issues
- Reference to AASHTO survey (Tim's)
- Why we need a Roadmap





Road Map

- **Objective and goals**
 - What are we trying to accomplish
 - How do we hope to get there





Road Map

- **Seminar-Scope and Objectives**
 - Why a seminar?
 - **Steering committee makeup and planning meetings**
 - Program organization
 - **Facilitators and note keepers**
 - Protocols
 - Participants
 - **Break out sessions**
 - Summary





Road Map

- Findings of breakout sessions
- Best Practices
- Gaps in Knowledge
- Research Needs
- Strategic Plan or Road Map

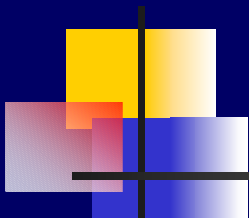




Road Map

- **We have identified Best Practices**
- **Now What do we do?**
 - **Outreach/Education**
 - Training programs
 - **Manuals & Guidelines**
 - AASHTO SOM presentation
 - **NHI course**
 - National Seminar
 - **TRB Workshop 2004**





Road Map

- We have identified Best Practices
- Now What do we do?



Glaring Oversights?



Road Map

- **We have identified Gaps in “N”**
- **Steering committee will prioritize**
 - **Short term action items**
 - **Long term action items**



Road Map

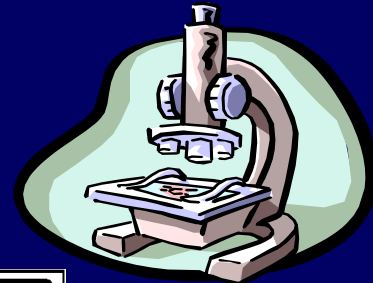
- We have identified Gaps in “N”
 - Short term
 - Long term



Glaring Oversights?

Road Map

- We have identified Research Needs
 - Where do we go from here?
 - Research needs identified
 - State sponsor identified
 - Submitted through AASHTO
 - TRB for NCHRP consideration 3/1/03
- Identify funding sources





Research Needs





Fundamentals

*Hamburg – Optimize/Standardize
New /Existing Test Methods for Research
Methylene Blue – Optimize/Standardize
Testing Protocol for Aggregate
Emulsifiability of Asphalt
Funnel – Bitumatic
Salts – NAPT, ICP
Pessimism Voids – Emulsification*





Fundamentals

Adhesive Failure

Surface Energy – Measurement Method

Cohesive Failure

Bitumen or Mastic

Heithaus

Pull Off

Water Absorption and Diffusion Test

Aggregate

ECS – ICP - Solubility





Testing & Treatments

- Fundamental property tests
- Long-term aging
- Rapid QC test
- Completion of ECS research
 - Dynamic modulus / fundamental properties (AASHTO 200X)
 - Traffic impacts on pore pressures
 - pH of water





Testing & Treatments

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Design Specs

- **Diagnostic Tools for moisture damage**
 - Standardization of terms, evaluation techniques, testing data format, forensic procedures.
- **Long term effect of treatments – aging, moisture and pavement performance**
- **Synthesis on test procedures, what mechanisms are measured per test, variations used by test, pros and cons per test.**





Construction

- Continuous Density / Stiffness Measurements
- Real Time Automated Plant Control
- Automated Paver Control / Feedback
- Effect Of Temperature On Adhesion
- Relationship Of Permeability To Performance



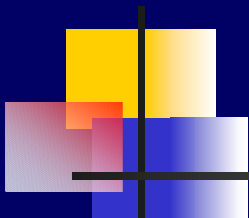


Road Map

- **We have identified Research Needs**
- **Where do we go from here?**
 - **Prepare research problem statements**
 - **Obtain funding**



What else?



Road Map

Other Comments?

Observations?

Questions?



MOISTURE SENSITIVITY

National February 4 - 6, 2003 **Seminar**

Thank You

